

**Amendment Under 37 C.F.R. § 1.111 and
Submission of Supplemental Declaration Pursuant to 37 C.F.R. § 1.132
U.S. Appln. No. 08/915,683**

view of either Tanemura et al (U.S. Patent No. 5,081,009) or Shuto et al (U.S. Patent No. 5,110,719) and Tsaur et al (U.S. Patent No. 5,210,013). This rejection is traversed for the following reasons.

The present invention is directed to a composition for a direct positive photographic emulsion including internal latent image type tubular silver halide grains, which form a direct positive image with excellent sharpness and reduced sensitivity to high illumination intensity.

In accordance with one aspect of the invention, and as set forth in independent claim 1, a internal latent image direct positive photographic silver halide emulsion is provided. The composition includes tabular silver halide grains having an average grain diameter of not less than 0.3 μm and an aspect ratio of from not less than 2 to not more than 100 in an amount of not less than 50% of all silver halide grains as calculated in terms of area. The tabular silver halide grains are core/shell grains having a core and an external shell, the average grain thickness a along the main plane of the external shell thereof is from not less than 0.2 μm to not more than 1.5 μm and the average grain thickness b perpendicular to the main plane of the external shell thereof is from not less than 0.04 μm to not more than 0.30 μm . The thickness of grains are so uniform that the coefficient of variation of thickness is not more than 30%.

The core of the core/shell grains are composed of silver bromide and are subjected to chemical sensitization in the presence of at least one compound selected from the group consisting of compounds represented by the following formula (A), (B) and (C) and a gold sensitizer in combination under the condition that substantially no thiosulfate ion is present during the chemical sensitization:

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wherein R, R¹ and R² may be the same or different and each represents an aliphatic group, aromatic group or heterocyclic group; M represents a cation; L represents a divalent linking group; m represents 0 or an integer of 1; the compounds of the formula (A), (B) and (C) may be each in the form of a polymer containing, as a repeating unit, a divalent group derived from the structures represented by the formulae (A), (B) and (C), respectively; and R, R¹, R² and L may be optionally connected to each other to form a ring.

In response to the latest claim amendments, the Examiner has maintained the previous rejection and added Tsaur et al solely for the alleged disclosure of silver halide grains having a very low coefficient of variation.

Tsaur et al relates to radiation-sensitive photographic emulsions. In particular, Tsaur et al discloses a photographic emulsion containing a co-precipitated grain population exhibiting a coefficient of variation of less than 10 percent. See, col. 5, lines 53-63.

Tsaur et al, however, simply does not disclose or fairly suggest the coefficient of variation of the thickness of the tubular grains, as set forth in the present invention, but rather the coefficient of variation of size of tubular grains. Thus, clearly the coefficient of variation in Tsaur et al and the present invention refer to different measurements. Tsaur et al's measurement is not within the scope of the present claims, where the grains are so uniform that the coefficient of variation of thickness is not more than 30%. Accordingly, even if combined in the manner

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suggest by the Examiner, one of ordinary skill in the art would not arrive at the claimed invention.

Evans et al, Tanemura et al, or Shuto et al have been discussed in detail in the previous responses. Moreover, as recognized by the Examiner none of these documents disclose or suggest that when the coefficient of variation of the thickness of grains is controlled so as to be less than 30%, a resistance to the formation of a negative image upon illumination is achieved.

Further, with respect to the Declaration Under 35 U.S.C. § 1.132 submitted on April 22, 2002, the Examiner found the evidence presented therein unpersuasive, at least in part, because of an alleged inconsistency between the distribution in thickness of the shell, as listed in Table 1 and the thickness of the grains recited in claim 1, as they refer to two different measurements. Official Action at page 4. In the Declaration, Applicants inadvertently referred to the “thickness of shell,” rather than “thickness of grains.” To clarify this misunderstanding Applicants hereby submit the attached Supplemental Declaration Under 37 C.F.R. § 1.132, where the appropriate revisions have been made to cure any inconsistencies between the recitations of the claims and the Supplemental Declaration.

“Compound A” listed in Table 1, is 3,6-dithia-1,8-octanediol. “Compound A” is very different from compounds (A), (B) or (C) present during chemical sensitization as set forth in independent claim 1, and it would be incorrect to re-label the column as “Amount of Compound A, B and C”. In fact, it is the fifth column in Table 1, entitled “Compound No.” which refers to the compounds present during chemical sensitization, namely, compounds (1-16, 2-3 or 3-5). Notably, the same amount (i.e., 10 mg) of Compound 1-16, 2-3 or 3-5 was utilized in preparation

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of the emulsions. See, for example, Preparation of Example 1, at pages 2-3 of the Declaration.

Furthermore, by controlling the amount of "Compound A" and the value of pBr, Applicants have produced samples having substantially the same a and b values. Thus, the Declaration surely provides a direct comparison between samples having AgBr cores and AgBrI cores.

As shown by Applicants, where the thickness of grains are so uniform that the coefficient of variation of thickness is not more than 30%, the emulsion samples of the present invention provide an unexpectedly remarkably large effect of inhibiting negative sensitivity Y, M and C.

On the other hand, the effect of decrease in sensitivity of the re-reversal negative image obtained according to the present invention is not relevant to the effect of increase in D_{\max} and decrease in D_{\min} . Because Evans et al, Shuto et al, Tanemura et al, and Tsaor et al neither describe nor suggest improvement in decrease in sensitivity of the re-reversal negative image when the coefficient of variation of the thickness of grains is controlled so as to be less than 30%, it is respectfully submitted that the present invention is unobvious over the applied prior art.

Thus, for the foregoing reasons withdrawal of the rejection is in order and it is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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